

WHAT IS CLAIMED IS:

1. A digital video system for adjusting a grade of a wirelessly transmitted signal, comprising:

a receiver that analyzes a packet of the wirelessly transmitted signal, wirelessly received from a first transmitting/receiving unit, to check the transmission error rate thereof, and outputs a grade adjustment request signal requesting one of an up-adjustment and a down-adjustment of a resolution grade of the signal to the first transmitting/receiving unit in accordance with the checked transmission error rate and a current resolution grade of the current received wirelessly transmitted signal; and

a transmitter that converts the wirelessly transmitted signal to be transmitted to the receiver into another wirelessly transmitted signal corresponding to the grade adjustment request signal of the receiver, and wirelessly transmits the converted signal through a second transmitting/receiving unit to the first transmitting/receiving unit.

2. The system of claim 1, wherein the receiver comprises:

a MPEG decoder that checks the transmission error rate while decoding the wirelessly transmitted signal received from the first transmitting/receiving unit and outputs the checked transmission error rate; and

a control unit that outputs to the transmitter said grade adjustment request signal requesting said down-adjustment when the transmission error

rate output from the MPEG decoder is greater than a reference value and a grade lower than the current resolution grade of the current received signal exists.

3. The system of claim 1, wherein the transmitter comprises:

a tuner that receives an external signal from a reception device, and determines whether the external signal is analog or digital;

a channel decoder that decodes said received signal when said received signal is digital, and generates a channel decoder output to a control unit in response to a first control input received from said control unit;

an analog decoder that decodes said received signal when said received signal is analog, and generates a first analog decoder output, and generates a second analog decoder output to a multi-sound processor that generates an audio output;

a selector that receives said first analog decoder output and said audio output and generates a video signal and an audio signal based on a second control input received from said control unit, said selector being configured to receive an external data input;

an analog-to-digital converter that converts said video signal and said audio signal from analog to digital format, and sends said converted video signal and said converted audio signal to an encoder that outputs an encoded signal to said control unit; and

the second transmitting/receiving unit outputting one of said channel decoder output and said encoded signal to said receiver as the wirelessly transmitted signal, and receiving said grade adjustment request signal.

4. The system of claim 2, wherein the control unit outputs to the transmitter said grade adjustment request signal requesting said up-adjustment when the transmission error rate output from the MPEG decoder is less than a reference value and a grade higher than the current resolution grade of the current received signal exists.

5. The system of claim 2, wherein the receiver further comprises:
a display unit that receives a video output of the MPEG decoder for a user to view; and
an audio decoder that receives an audio output of the MPEG decoder, and generates a decoded audio output to a speaker for said user to hear.

6. A method of controlling a wirelessly transmitted signal processed by a receiver and received from a transmitter, comprising the steps of:

checking a transmission error rate of a packet of the wirelessly transmitted signal received from the transmitter; and
transmitting a down-adjustment request signal to the transmitter with respect to a grade of the wirelessly transmitted signal when the transmission error rate is greater than a reference value, and when the wirelessly transmitted

signal can be adjusted down to a grade lower than the resolution grade of the received signal.

7. The method of claim 6, further comprising:

determining whether said transmission error rate is within a range of values; and

performing said transmitting and receiving when said transmission error rate is not within said range.

8. The method of claim 6, further comprising:

receiving the down-adjustment request signal, converting the wirelessly transmitted signal to be transmitted into a format that corresponds to a revised signal having a grade lower than the resolution grade of the signal, and transmitting the converted signal to the receiver.

9. The method of claim 6, further comprising:

transmitting an up-adjustment request signal to the transmitter with respect to a grade of the wirelessly transmitted signal when the transmission error rate is less than a reference value, and when the wirelessly transmitted signal can be adjusted up to a grade greater than the resolution grade of the signal; and

receiving the up-adjustment request signal, converting the wirelessly transmitted signal to be transmitted into a format that corresponds to a revised signal having a grade higher than the resolution grade of the wirelessly transmitted signal, and transmitting the converted signal to the receiver.

10. A method of controlling a digital video system comprising a transmitter that wirelessly outputs a wirelessly transmitted signal to be transmitted, and a receiver that wirelessly communicates with the transmitter, and processes the signal received from the transmitter, the method comprising the steps of:

the receiver, checking a transmission error rate of a packet of the wirelessly transmitted signal received from the transmitter;

transmitting a down-adjustment request signal to the transmitter with respect to a grade of the wirelessly transmitted signal when the transmission error rate is greater than a reference value, and when the wirelessly transmitted signal can be adjusted down to a grade lower than the resolution grade of the video signal; and

the transmitter, receiving the down-adjustment request signal, converting the wirelessly transmitted signal to be transmitted into a format that corresponds to a revised signal having a grade lower than the resolution grade of the wirelessly transmitted signal, and transmitting the converted signal to the receiver.

11. The method of claim 10, further comprising:

transmitting an up-adjustment request signal to the transmitter with respect to a grade of the wirelessly transmitted signal when the transmission error rate is less than a reference value, and when the wirelessly transmitted signal can be adjusted up to a grade greater than the resolution grade of the wirelessly transmitted signal; and

the transmitter, receiving the up-adjustment request signal, converting the wirelessly transmitted signal to be transmitted into a format that corresponds to a revised signal having a grade higher than the resolution grade of the signal, and transmitting the converted signal to the receiver.

12. The method of claim 10, further comprising:

determining whether said transmission error rate is within a range of values; and

performing said transmitting and receiving when said transmission error rate is not within said range.

13. A computer readable medium containing instructions for controlling a video display system, said instructions comprising:

checking a transmission error rate of a packet of the signal received from the transmitter;

transmitting a down-adjustment request signal to the transmitter with respect to a grade of the signal when the transmission error rate is greater than a reference value, and when the signal can be adjusted down to a grade lower than the resolution grade of the received signal; and

receiving the down-adjustment request signal, converting the signal to be transmitted into a format that corresponds to a revised signal having a grade lower than the resolution grade of the signal, and transmitting the converted signal to the receiver.

14. The computer-readable medium of claim 13, further comprising the instructions of:

transmitting an up-adjustment request signal to the transmitter with respect to a grade of the signal when the transmission error rate is less than a reference value, and when the signal can be adjusted up to a grade greater than the resolution grade of the signal; and

receiving the up-adjustment request signal, converting the signal to be transmitted into a format that corresponds to a revised signal having a grade higher than the resolution grade of the signal; and transmitting the converted signal to the receiver.

15. An apparatus for adjusting a grade of a wirelessly transmitted signal, comprising:

a transmitter that receives an external telecommunication signal, and outputs an image signal; and

a receiver that wirelessly receives said image signal and generates display for a user, wherein a feedback signal is provided to said transmitter when a transmission error rate is not within a reference range, and said transmitter alters a grade of transmission of said image signal in response to said feedback signal.

16. The apparatus of claim 15, said transmitter comprising:

a tuner that receives the external telecommunication signal from a reception device, and determines whether the external telecommunication signal is analog or digital;

a channel decoder that decodes said received signal when said received signal is digital, and generates a channel decoder output to a control unit in response to a first control input received from said control unit;

an analog decoder that decodes said received signal when said received signal is analog, and generates a first analog decoder output, and generates a second analog decoder output to a multi-sound processor that generates an audio output;

a selector that receives said first analog decoder output and said audio output and generates a video signal and an audio signal based on a second control input received from said control unit, said selector being configured to receive an external input;

an analog-to-digital converter that converts said video signal and said audio signal from analog to digital format, and sends said converted video signal and said converted audio signal to an encoder that outputs an encoded signal to said control unit; and

a transmitting/receiving unit outputting one of said channel decoder output and said encoded signal to said receiver, and receiving said grade adjustment request signal.

17. The apparatus of claim 15, said receiver comprising:

a MPEG decoder that checks the transmission error rate while decoding the signal received from a transmitting/receiving unit and outputs the checked transmission error rate; and

a control unit that outputs to the transmitter said feedback signal requesting down-adjustment when the transmission error rate output from the MPEG decoder is greater than a reference value and a grade lower than the current resolution grade of the current received signal exists.

18. The apparatus of claim 17, wherein the control unit outputs to the transmitter said feedback signal requesting up-adjustment when the transmission error rate output from the MPEG decoder is outside the reference range and a grade higher than a resolution grade of the image signal exists.

19. The apparatus of claim 17, said receiver further comprising:

- a display unit that receives a video output of the MPEG decoder for a user to view; and
- an audio decoder that receives an audio output of the MPEG decoder, and generates a decoded audio output to a speaker for said user to hear.

20. The apparatus of claim 18, said receiver further comprising:

- a display unit that receives a video output of the MPEG decoder for a user to view; and
- an audio decoder that receives an audio output of the MPEG decoder, and generates a decoded audio output to a speaker for said user to hear.